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RESPONSE UNDER 37 C.F.R. § 1.116  
EXPEDITED PROCEDURE  
EXAMINING GROUP 1700

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: J. Nemeth

Attorney Docket No.: CASM117536

Application No.: 09/857,133

Group Art Unit: 1774

Filed: May 31, 2001

Examiner: T. Dicus

Title: SECURITY DOCUMENT WITH RAISED INTAGLIO PRINTED IMAGE

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RESPONSE TO FINAL OFFICE ACTION

Seattle, Washington 98101

November 13, 2003

TO THE COMMISSIONER FOR PATENTS:

REMARKS

Applicant requests that the above-identified application be re-examined.

The final Office Action in the above-identified application mailed September 4, 2003 ("Office Action"), rejected all of the claims remaining in this application (Claims 1-5, 7-9, and 11-42) on the grounds of double patenting in view of Claims 1-40 of Patent Application No. 09/806,966 (now U.S. Patent No. 6,605,338) and suggested that the filing of a terminal disclaimer could be used to overcome this rejection. As noted in paragraph 4 of the attached Declaration of Bruce Alfred Hardwick (discussed more fully below), U.S. Patent Application No. 09/806,966 (now U.S. Patent No. 6,605,338) is assigned to Securrency Pty Ltd. Securrency Pty Ltd. is a joint venture between the Reserve Bank of Australia ("RBA") and UCB SA, a Belgian company, which manufactures polymer substrates for use in the manufacture of banknotes. The present application is assigned to Note Printing Australia Limited. Note Printing Australia Limited is a wholly owned subsidiary of RBA. Thus, while there is a relationship between the assignees of this application and U.S. Patent Application No. 09/806,966 (now U.S. Patent No. 6,605,338), the owning companies are different legal entities.

Regardless of the foregoing ownership issues, for the reasons set forth in the response to the last Office Action, which reasons are expanded below, applicant submits that the rejection of

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the claims of this application based on U.S. Patent Application No. 09/806,966 (now U.S. Patent No. 6,605,338) is clearly in error and should be withdrawn.

Attached are Declarations by Bruce Alfred Hardwick and Wayne Kevin Jackson that, applicant believes, clearly refute the Office Action's position that the invention claimed in this application is not patentably distinct from U.S. Patent Application No. 09/806,966 (now U.S. Patent No. 6,605,338).

As noted in the attached Declaration of Bruce Alfred Hardwick, owing to the connection between Note Printing Australia Limited and Securrency Pty Limited, Dr. Hardwick is familiar with the research and development programs that led to the filing of U.S. Patent Application No. 09/806,966 (now U.S. Patent No. 6,605,338) of Securrency Pty Ltd and the current U.S. Patent Application No. 09/857,133.

Dr. Hardwick's Declaration explains the differences between the respective inventions of U.S. Patent No. 6,605,338 and the present application. First, the transparent or translucent intaglio printing ink used in the present invention has no color, or virtually no color, and extremely low chroma and lightness values, whereas U.S. Patent No. 6,605,338 uses a highly colored intaglio printing ink having high chroma and lightness values of at least 30 chroma units and 50 lightness units. Second, the visual effects produced by the respective inventions are quite different. Exhibit 2 attached to Dr. Hardwick's Declaration is a sample of a security document incorporating the invention of U.S. Patent No. 6,605,338, which is called an intaglio contrast effect (ICE). The ICE effect is produced by applying raised lines or dots of a highly colored intaglio printing ink (red in the sample of Exhibit 2) to a highly reflective background (a gold reflective patch in the sample of Exhibit 2). The part of the security document exhibiting the ICE effect is towards the bottom left-hand corner of the sample containing the letters "rency" and a complex line structure in red intaglio ink on the gold patch. When the sample is viewed at an angle substantially perpendicular to its surface, the gold reflective patch appears very bright, but the letters "rency" and the pattern in red do not appear as bright. However, when the viewing angle changes from the perpendicular through oblique viewing angles, e.g., when the sample is tilted, the gold reflective patch becomes duller and the color of the highly colored red intaglio ink increases in intensity. **It is also important to note that the raised printed image formed by the highly colored red intaglio ink is visible at all viewing angles.**

In contrast, the effect produced by the raised lines or dots of a transparent or translucent intaglio printing ink to a background of a smooth highly reflective layer produces a **disappearing effect** that applicant calls TIDE (transparent intaglio disappearing effect).

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Exhibit 3, attached to Dr. Hardwick's Declaration, is an example of an embodiment of the present invention. Exhibit 3 includes a pattern of raised lines printed in a transparent ink onto a highly reflective gold background above the number 500,000. **When the sample is viewed from a direction perpendicular to the surface of the substrate, the image formed by the transparent intaglio ink is essentially invisible.** However, when the sample is tilted so that the viewing angle corresponds to the angle of incidence from a light source, the image formed by the raised lines of transparent ink becomes visible. The nature of the actual image in the sample of Exhibit 3, best seen from a viewing angle of about 45° to 60° and from the left-hand side of the exhibit, is a kind of obelisk with a bird perched on top. The range of viewing angles within which the image is visible is called "a window of high reflection" in the specification of the present application. Within this window of high reflection, the highly reflective gold background appears a bright gold color and the part of the image formed by the raised printed lines of transparent or translucent ink is visible owing to the specular scattering of light caused by the raised transparent lines. However, when the document is tilted to more oblique angles, the image disappears.

The sample of Exhibit 3 also includes non-reflective indicia, the letters "BNR," printed on the highly reflective gold background. This feature is claimed in dependent Claims 23, 24, 27, 28, 36, 37, 40, and 41. It can be seen from the sample that the raised intaglio printed image has the effect of blurring the non-highly reflective indicia within the window of high reflection.

With regard to the Declaration of Wayne Kevin Jackson, Mr. Jackson is one of the inventors of cited U.S. Patent Application No. 09/806,966 (now U.S. Patent No. 6,605,338). He also explains the difference between the transparent or translucent intaglio ink as described in the present application and the highly colored intaglio ink used in U.S. Patent No. 6,605,338. Mr. Jackson's declaration states that "a clear transparent ink has no color, i.e., a zero chroma value, and even a colored translucent ink would only have very low chroma and lightness values, well below those specified in U.S. Patent No. 6,605,338." Mr. Jackson's declaration also explains the differences between the visual effects produced by the respective inventions in a similar manner to Dr. Hardwick.

In summary, the visual effect of the present application is a disappearing effect in which the raised printed image produced by the transparent or translucent ink is only visible at a small range of viewing angles within the window of high reflection, and disappears when viewed from other viewing angles outside that window. The raised printed image of brightly colored ink on a highly reflective background is visible at all viewing angles with different contrasting effects of

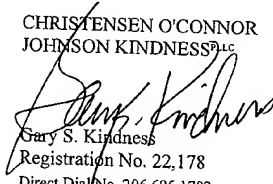
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brightness, with the color of the high chroma ink intensifying as the viewing angle changes from the perpendicular.

In summary, applicant submits that all of the claims remaining in this application are clearly patentably distinguishable over U.S. Patent Application No. 09/806,966 (now U.S. Patent No. 6,605,338). Consequently, applicant respectfully requests that the rejections set forth in the Office Action be withdrawn and this application passed to issue.

Respectfully submitted,

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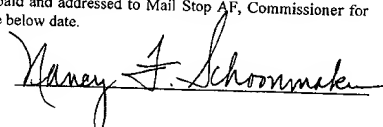
  
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